First Announcement ICWG-1

1st Workshop
CGMS International Cloud Working Group

17-20 May 2016, Lille, France, Europe
Organized by Université de Lille 1 - Sciences & Technologies, France
Financially supported by EUMETSAT

Program Committee
Bryan Baum (co-chair), Rob Roebeling (co-chair), Dong Wu (Rapporteur), and
Jerome Riedi (local organizer)

CGMS Advisory Panel
Bryan Baum (NASA, USA), Stefan Bojinski (WMO, Switzerland), Sung-Rae Chung (KMA Korea), Lu Feng (CMA, China), Andrew Heidinger (NOAA, USA), N. Puviarasan (IMD, India), Rob Roebeling (EUMETSAT, Germany), Alexei Rublev (Roshydromet, Russia), and Daisaku Uesawa (JMA, Japan)

Version: 07 May 2015

First Announcement ICWG-1

1st Workshop
CGMS International Cloud Working Group

17-20 May 2016, Lille, France

From 17 till 20 May 2016 the 1st Workshop of the International Cloud Working Group (ICWG) will be held in Lille, France. The local organization of the workshop is led by Université de Lille 1 - Sciences & Technologies. The workshop aims at enhancing cloud retrieval schemes and their applicability and a better characterization of their validity. We invite experts working with cloud parameter retrieval schemes from passive imagers (e.g. METEOSAT, AVHRR and MODIS), passive microwave (e.g. AMSR), and active lidars and radars observations (e.g. CloudSat, CALIPSO) to participate in the workshop and to contribute to the cloud parameter inter-comparison and validation activity that is connected to the workshop. More information on registration and submitting abstracts will follow in the second announcement.

Background

The 1st Workshop of the International Cloud Working Group (ICWG) within the Coordinated Group for Meteorological Satellites (CGMS) is a continuation of four earlier workshops that we organized under the name of Cloud Retrieval Evaluation Workshops (CREWs). The four earlier Workshops that were held in Grainau, Germany (2014), Norrköping, Sweden (2006), Locarno, Swiss (2009), and Madison, USA (2011). During these workshops algorithms for cloud parameter retrievals were discussed. A common database with cloud parameter retrievals from different product providers has been set-up. This database comprises cloud parameter retrievals from MSG, MODIS, AVHRR, POLDER and/or AIRS for a number of "golden days". A very important integral part of the CREW workshops are the discussions on inter-comparison and validation studies done with the data from the common database. In this way knowledge is gained on the behavior of the different retrieval schemes over different cloud conditions.

The main recommendations of the CREW in Grainau, Germany were to:
- Improve cloud models used in retrievals to more accurately reflect reality, in particular ice crystal models, vertical in-homogeneity and multiple layers;
- Explore the potential of combining different types of observations in level-2 cloud retrievals methods;
- Explore the definition of a set of essential filtering rules in level-3 aggregation methods for different cloud parameters;
- Work towards the characterisation of uncertainties in level-2 and level-3 products;
- Explore production of multi-algorithm ensembles to assess uncertainty/sensitivity;
- Explore the production of long-term datasets aimed at stability and accurate assessment of product strengths and weaknesses;
- Use of common ancillary data and validation procedures for level-2 and level-3 data;
- Establish topical groups to make progress on a variety of outstanding issues, for example multi-layered clouds, severe weather applications, and aggregation methods.

Version: 07 May 2015

1st Workshop of the ICWG

In the framework of the ICWG, the Topical Groups provide the focus necessary for addressing the recommendations and key research topics that being identified at the biennial Workshops of the ICWG. These Topical Groups work in collaboration, under the coordination from a lead, on these recommendations and research topics. The Topical Group leads will present their results, discuss the focal points to be addressed at the next biennial meeting in breakout sessions, and report on these focal points at the plenary final discussion. During the last CREW Workshop (CREW-4) a preliminary list of Topical Groups and proposed leads was drafted. For the ICWG-1, the leads of the Topical Groups have confirmed their involvement to date with the following list (Topic and name of Lead):

- Use of Combined Sensors for Cloud Retrievals (*Bryan Baum*)
- Cloud Modeling (*Phil Watts*)
- Cloud Height for Wind Applications (*Andrew Heidinger*)
- Cloud Retrievals over Snow and Ice Surface (*Andy Walther*)
- Severe Weather Applications (*Mike Pavalonis*)
- Validation Sources (*Patrick Minnis*)
- Assessment of level-2 Passive Imager Cloud Parameter Retrievals (*Yong-Sang Choi*)
- Assessment of Retrieval Uncertainties (*Caroline Poulsen*)
- Aggregation Methods for Climate Applications (*Nadia Smith*)
- Assessment of Cloud Parameter Data Records for Climate Studies (*Martin Stengel*)

More details on the plans of the Topical groups can be found on the ICWG Wiki. Participants of the 1st Workshop of the ICWG are encouraged to contribute to at least one (and hopefully more) of the Topical Groups before the next Workshop. Please contact the leads of the Topical Groups and discuss with them how you would like to contribute (the list of Topical Group leads is provided in the section Further Information).

The conference is organized by Université de Lille 1 - Sciences & Technologies, and is financially supported by EUMETSAT. The conference will be held from 17 till 20 May 2016 in Lille, France. Please note that the workshop may be subject to a small fee, which is estimated to be below 100 € participant.

More information on the 1st Workshop of the ICWG can be found on the ICWG Wiki:

http://www.icare.univ-lille1.fr/crew

Workshop Topics

The workshop will cover a wide range of topics concerning cloud parameter retrievals, its applications and related issues. The primarily focus will be on the topics that are addressed by the Topical Groups as these cover some of the most active research questions in our community. We propose that key issues for this meeting include:

- *Cloud Modeling*

- *Cloud Parameter Retrievals from Combined Sensors*

- *Aggregation Methods for Climate Applications*

- *Assessment of Cloud Parameter Retrievals and their Uncertainty Estimates*

- *Cloud Parameters in Weather and Climate Applications*

Submission of Abstracts

More information on submitting abstracts will follow in the second announcement.

Registration

More information on registering will follow in the second announcement.

Accommodation and Conference Venue

More information on accommodations will follow in the second announcement.

Access to the Common Database

Now, a dedicated FTP space is available for the ICWG on the ftp server of the Université de Lille 1 - Sciences & Technologies
ftp://ftpush.icare.univ-lille1.fr/
(thanks to Jerome Riedi, ICARE, and the "Université de Lille 1 - Sciences & Technologies").

To be able to use the ftp site, you have to register on ICARE through the following form:
http://www.icare.univ-lille1.fr/register/register.php

When asked for a *"short description of your project"*, please fill:
Account request for the Cloud Retrieval Evaluation Workshop (CREW)

Once registered, you automatically become a member of the ***CREW Working Group,*** which gives you ftp access to the following hidden directory:
ftp://ftpush.icare.univ-lille1.fr/crew

This directory is available to the group only and it is hidden so it won't show up on *'ls'* but you can directly go to the folder with:
cd /crew

If you like upload your algorithm description and/or updated/extended your dataset, please use the upload folder for your algorithm:
/crew/upload/<Algorithm-Acronym>

The Algorithm-Acronyms are listed on the following webpage:
http://www.icare.univ-lille1.fr/crew/index.php/Evaluation_Dataset_for_Passive_Imager_Retrievals

For questions and comments related to access and use of the FTP site, the website, and the ICARE resources please send an email to Jerome Riedi *(jerome.riedi@univ-lille1.fr)*.

For other ICARE services and resources please check the ICARE website:
http://www.icare.univ-lille1.fr/

Providing updates to the Common Database

Through the Topical Group "*Assessment of level-2 Passive Imager Cloud Parameter Retrievals*", lead by Dr. Yong-Sang Choi (Ewha Womans University), the ICWG will continue to inter-compare cloud property retrievals from both polar-orbiting and geostationary passive imagers. Comparisons with the CALIPSO/CALIOP and CPR/CloudSat sensors have proven to be very useful in the previous CREW workshops. These comparisons aim at identifying current capacity of retrieving the cloud parameters based on unified reference data.

The ICWG-1 providers of cloud parameter retrievals are invited to provide instantaneous (level-2) cloud property retrievals, either new datasets or updates of existing datasets, for the golden days (13, 17, 18, and 22 June 2008, 3 July 2008, and 8 October 2014). These datasets will be included in the Common Database of cloud property retrievals. This database currently includes cloud property retrievals from 15 different algorithms. The providers of cloud property retrievals have the option to:

- Update their algorithm descriptions;
- Update of their cloud property dataset for the golden days;
- Submit new cloud property datasets for the golden days;

The goal is to use the level-2 datasets for an inter-comparison of cloud property retrievals (and their error estimates) from both polar and geostationary passive imagers (e.g., SEVIRI observing Europe and Africa, AHI/Himawari8 observing Asia and Tropical Western Pacific, AVHRR onboard NOAA 18 and MODIS). As reference datasets, the main sources of information will be the cloud properties obtained from CLOUDSAT and/or CALIPSO observations and Cloud Liquid Water Path observations from passive microwave instruments (e.g. AMSR).

Further Information

CGMS Advisory Panel

Bryan Baum (NASA, USA); Stefan Bojinski (WMO, Switzerland); Sung-Rae Chung (KMA Korea); Lu Feng (CMA, China); Andrew Heidinger (NOAA, USA); N. Puviarasan (IMD, India); Rob Roebeling (EUMETSAT, Germany); Alexei Rublev (Roshydromet, Russia); Daisaku Uesawa (JMA, Japan)

Co-Chairs:

Bryan Baum, Univ. of Wisconsin-Madison: bryan.baum@ssec.wisc.edu
Rob Roebeling, EUMETSAT: rob.roebeling@eumetsat.int

Rapporteur to CGMS:

Wu Dong, NASA: dong.l.wu@nasa.gov

Local organization:

Jerome Riedi, Université de Lille 1 - Sciences & Technologies: jerome.riedi@univ-lille1.fr

Location:

Place: : Lille, France
Conference: : 17-20 May 2016

Leads of the Topical Groups:

- *Use of Combined Sensors for Cloud Retrievals*
  (Bryan Baum: bryan.baum@ssec.wisc.edu)

- *Cloud Modeling*
  (Phil Watts: Philip.Watts@eumetsat.int)

- *Cloud Height for Wind Applications*
  (Andrew Heidinger: heidinger@ssec.wisc.edu)

- *Cloud Retrievals over Snow and Ice Surface*
  (Andi Walther: andi.walther@ssec.wisc.edu)

- *Severe Weather Applications*
  (Mike Pavalonis: michael.pavolonis@noaa.gov)

- *Validation Sources*
  (Patrick Minnis: p.minnis@nasa.gov)

- *Assessment of level-2 Passive Imager Cloud Parameter Retrievals*
  (Yong-Sang Choi: ysc@ewha.ac.kr)

- *Assessment of Retrieval Uncertainties*
  (Caroline Poulsen: caroline.poulsen@stfc.ac.uk)

- *Aggregation Methods for Climate Applications*
  (Nadia Smith: nadia.smith@ssec.wisc.edu)

- *Assessment of Cloud Parameter Data Records for Climate Studies*
  (Martin Stengel: martin.stengel@dwd.de)

Version: 07 May 2015